

# Bluetooth Win 7 Suite User's Guide

June 2010



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MKG-1296 Rev. 3

# Document Conventions

## Text Conventions

**bold** Bold type within paragraph text indicates commands, file names, directory names, paths, output, or returned values.

Example: The DK\_Client package will not function unless you use the **wdreg\_install** batchfile.

*italic* Within commands, italics indicate a variable that the user must specify.

Example: **mem\_alloc** *size\_in\_bytes*

Titles of manuals or other published documents are also set in italics.

Courier The Courier font indicates output or display.

Example:

```
Error:Unable to allocate memory for transfer!
```

[ ] Within commands, items enclosed in square brackets are optional parameters or values that the user can choose to specify or omit.

{ } Within commands, items enclosed in braces are options from which the user must choose.

| Within commands, the vertical bar separates options.

... An ellipsis indicates a repetition of the preceding parameter.

> The right angle bracket separates successive menu selections.

Example: Start > Programs > DK > wdreg\_install.

## Notices

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**NOTE:** This message denotes neutral or positive information that calls out important points to the text. A note provides information that may apply only in special cases.

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## Revision History

Revision	Description of Changes
September 2009	Initial release of Bluetooth Win 7 Suite User's Guide
March 2010	Updated the book, made minor changes in various chapters. Made major changes in chapter 4. Changed company logo.
April 2010	Changed screen shots and descriptions in chapter 4 due to changes in the Graphical User's Interface.
June 2010	Changed screen shots and descriptions in chapter 4 due to changes in the Graphical User's Interface.

# Contents

<b>Preface</b> . . . . .	vii
About this Document . . . . .	vii
Reference Documentation . . . . .	viii
<b>1 Introduction</b> . . . . .	1-1
Setup Requirements . . . . .	1-2
<b>2 Getting Started</b> . . . . .	2-1
Installing Bluetooth Device and Bluetooth Win7 Suite . . . . .	2-1
Downloading the Bluetooth Win7 Suite . . . . .	2-2
Copying Bluetooth Win7 Suite from the CD . . . . .	2-2
Launching the Bluetooth Win7 Suite . . . . .	2-7
Verifying the Driver Installation. . . . .	2-7
Launching the Bluetooth Software . . . . .	2-9
Uninstalling the Bluetooth Win7 Suite . . . . .	2-10
<b>3 Adding Bluetooth Devices</b> . . . . .	3-1
Discovering and Adding Bluetooth Devices . . . . .	3-1
Bluetooth Dongle Prerequisites . . . . .	3-2
Displaying Enabled Bluetooth Devices . . . . .	3-4
<b>4 Managing Bluetooth Devices</b> . . . . .	4-1
Managing Bluetooth Devices. . . . .	4-2
Bluetooth Options . . . . .	4-5
COM Ports . . . . .	4-6
Using the Serial Port Profile (SPP) . . . . .	4-7
Bluetooth Hardware . . . . .	4-8

Share . . . . .	4-8
Bluetooth Sync . . . . .	4-9
Bluetooth Operations . . . . .	4-11
Audio Services . . . . .	4-14
File Operations. . . . .	4-15
Sync Operations . . . . .	4-15
Authorization Options . . . . .	4-16
The Right-Click Option . . . . .	4-17
<b>Index . . . . .</b>	<b>Index-1</b>

# Preface

This document describes the installation, configuration, and usage of the Bluetooth Win7 Suite. Bluetooth Win7 Suite is a PC-based software package that provides the upper-layer Bluetooth stack functionality in support of the Atheros Bluetooth solution. Bluetooth Win7 Suite requires a Bluetooth device to be connected via USB to the PC for proper operation.

Bluetooth Win7 Suite, through its simple Graphical User Interface, allows you to quickly find, connect, and communicate with other Bluetooth devices.

This document is intended for ODMs (Original Design Manufacturers) and OEMs (Original Equipment Manufacturers) that are evaluating or developing BT solutions based on Atheros' Bluetooth solution.

## About this Document

The document consists of the following chapters:

- Chapter 1**      **Introduction**—provides an introduction to the Bluetooth Win7 Suite.
- Chapter 2**      **Getting Started**—explains the basic features of Bluetooth Win7 Suite and provides step-by-steps procedures for installing the Bluetooth driver and Bluetooth Win7 Suite Suite Application.
- Chapter 3**      **Adding Bluetooth Devices**—describes how to discover, configure, pair, and add Bluetooth devices to your system using the Bluetooth Win7 Suite.
- Chapter 4**      **Managing Bluetooth Devices**—an overview of the Bluetooth features this program provides, such as sending and receiving files.

## Reference Documentation

The following documents provides additional reference material related to this product:

- *Windows Help and Support documentation*



# 1

## Introduction

This chapter provides a user's overview of the Bluetooth Win7 Suite. This software tool finds and links Bluetooth devices and facilitates the communication between these devices.

The Bluetooth Win7 Suite is a Bluetooth communication application that aids in easy management and interaction with wireless personal area networks (WPAN) and remote Bluetooth devices. Among others, these devices include mobile phones, headsets, pointing devices, modems, and access points. The Bluetooth Win7 Suite can do the following:

- Find and connect to remote devices, as well as see the services they can provide
- Browse folders and files on remote devices, and exchange files with them
- Use wireless dial-up networking and serial-based functions

The Bluetooth Win7 Suite is used in conjunction with an Atheros Bluetooth USB device. This device is provided as a HCI USB Adapter that plugs into a PC USB port.

Bluetooth Win7 Suite's main screen provides easy-to-use controls for the application and its user-friendly graphical user interface (GUI) works with various Bluetooth devices such as:

- Palm-sized PCs/PDAs
- Laptops
- Cellular phones
- Human interface devices such as a mouse and keyboard
- Desktop workstations
- Headsets
- Printers
- Fax machines

## Setup Requirements

1. PC running Windows 7
2. Atheros Bluetooth USB Device
3. Bluetooth mouse
4. Bluetooth cellular phone
5. Bluetooth headset
6. Bluetooth printer
7. Fax machine
8. Any other Bluetooth devices

**NOTE:** Microsoft Windows 7 Ultimate was used for the installation of Bluetooth hardware and software.

# 2

## Getting Started

This chapter describes how to install, uninstall, and launch the Bluetooth Win7 Suite.

**NOTE:** It is assumed that Bluetooth Win7 Suite is not present on your system.

The following major topics are covered in this chapter:

- ["Installing Bluetooth Device and Bluetooth Win7 Suite"](#)
- ["Launching the Bluetooth Win7 Suite"](#)
- ["Launching the Bluetooth Software"](#)
- ["Uninstalling the Bluetooth Win7 Suite"](#)

### Installing Bluetooth Device and Bluetooth Win7 Suite

**NOTE:** If Skype is already installed on the computer and Skype is logged in, the Skype configuration option will be prompted. Otherwise, no Skype screens should be displayed.

This Bluetooth Win7 Suite was attained, either through a password-protected download from the Atheros site, or a product CD. If the Bluetooth Win7 Suite already exists on the hardware platform, uninstallation is not necessary before installing the new version because of the upgrade feature of the Bluetooth Win7 Suite.

If it is necessary to uninstall Bluetooth Win7 Suite, refer to ["Uninstalling the Bluetooth Win7 Suite"](#) on [page 2-10](#).

Software installation is a three-step process and it is important to perform these steps before using the Bluetooth Win7 Suite:

1. Install the Bluetooth Win7 Suite.
2. Install the radio (profile) drivers.

All of these steps are explained in the installation process.

## Downloading the Bluetooth Win7 Suite

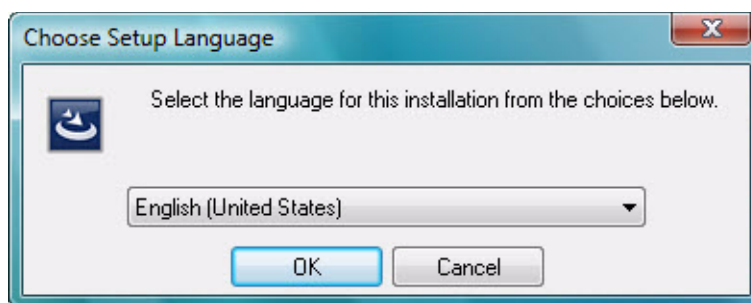
1. Got to the Atheros Support web site:  
<https://support.atheros.com/>
2. Login to the web site using your user name and password provided by Atheros Support.
3. Go to the Bluetooth Win7 Suite download section of the Atheros web site.
4. Download the Bluetooth Win7 Suite, extract the files, and save them to the computer's desktop.
5. Install the Bluetooth Win7 Suite by double-clicking on the **Bluetooth Win7 Suite** executable file.

Follow the rest of the installation procedure described in “[Copying Bluetooth Win7 Suite from the CD](#)” on [page 2-2](#).

## Copying Bluetooth Win7 Suite from the CD

1. Insert the CD containing the Bluetooth Win7 Suite into the CD drive.
2. Double Click on the **Bluetooth Suite** file and follow the instructions.

The InstallShield Wizard starts to prepare the package for installation. You will see the Choose Language Setup screen as shown in [Figure 2-1](#).



*Figure 2-1. Choose Setup Language*

3. Choose **English** (United States) and click **OK**.

After few seconds the **Welcome to InstallShield Wizard for Bluetooth Win7 Suite** screen is displayed. See [Figure 2-2](#).

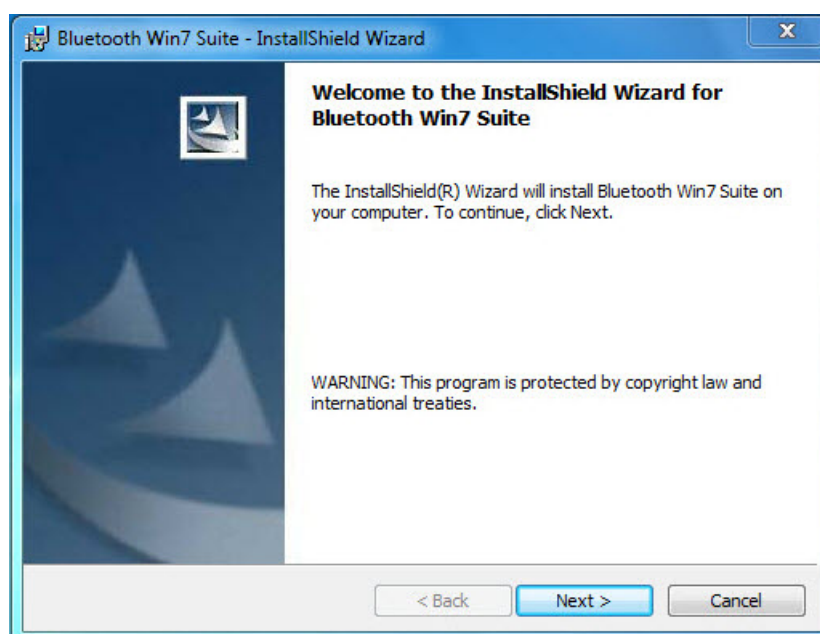


Figure 2-2. InstallShield Wizard Welcome Screen

4. Click **Next** to continue.

The **Destination Folder** screen will be displayed as seen [Figure 2-3](#).

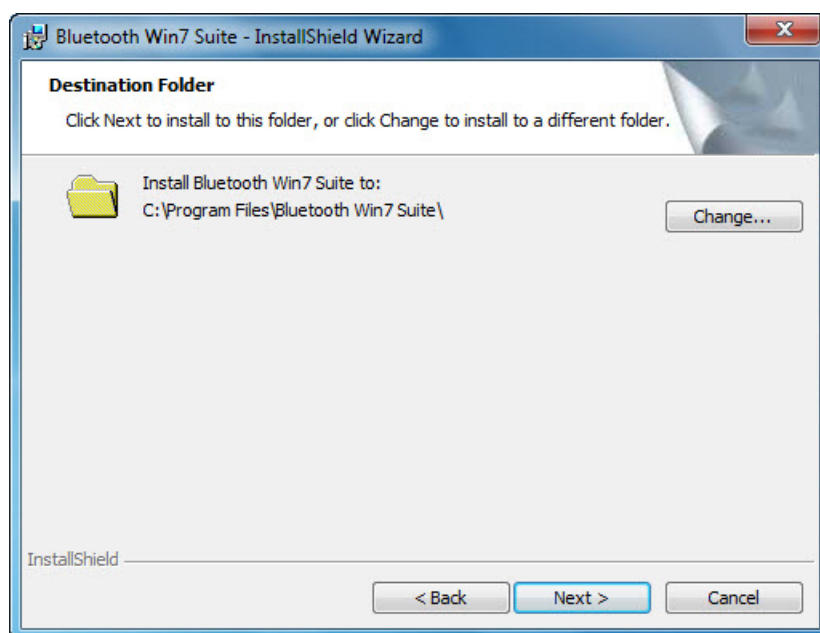
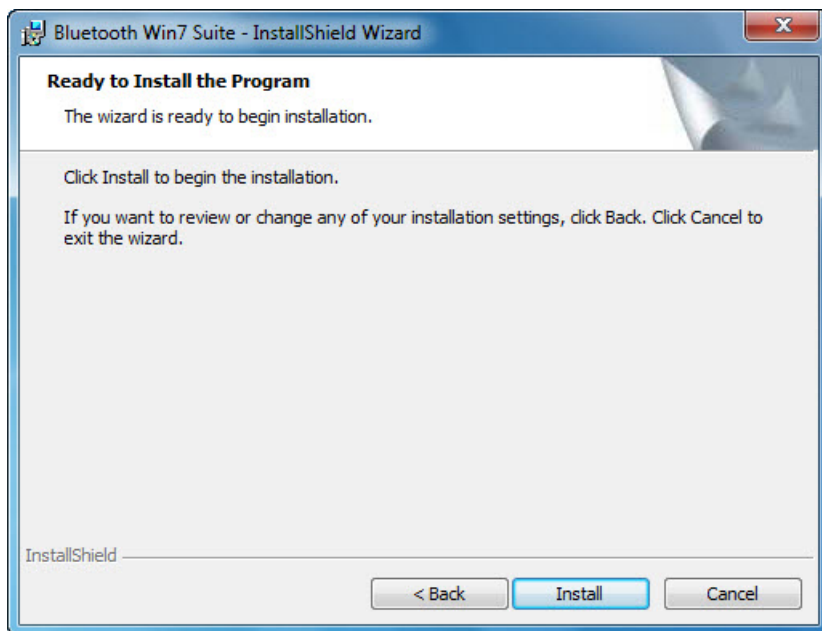


Figure 2-3. InstallShield Wizard Choosing Destination Folder

5. Click **Next**.

Click **Change** to change the default destination in order to browse to another destination location and then click **Next** to continue.

The **Ready to Install the Program** screen is prompted, as shown in [Figure 2-4](#).



*Figure 2-4. Bluetooth Win7 Suite - Ready to Install Screen*

6. Click **Install**.

The **Installing Bluetooth Win7 Suite** screen is displayed while the transfer of files is taking place. See [Figure 2-5](#). This screen displays the current settings which includes the destination directory which can facilitate reviewing and modifying the setup information.



Figure 2-5. Bluetooth Win7 Suite - Installation Screen

7. Click **Next**.

At this time a security warning message may be prompted indicating that the installation wishes to access Skype. Users may allow or deny access based on personal preference. Either choice will not affect the installation process. See Figure 2-6.

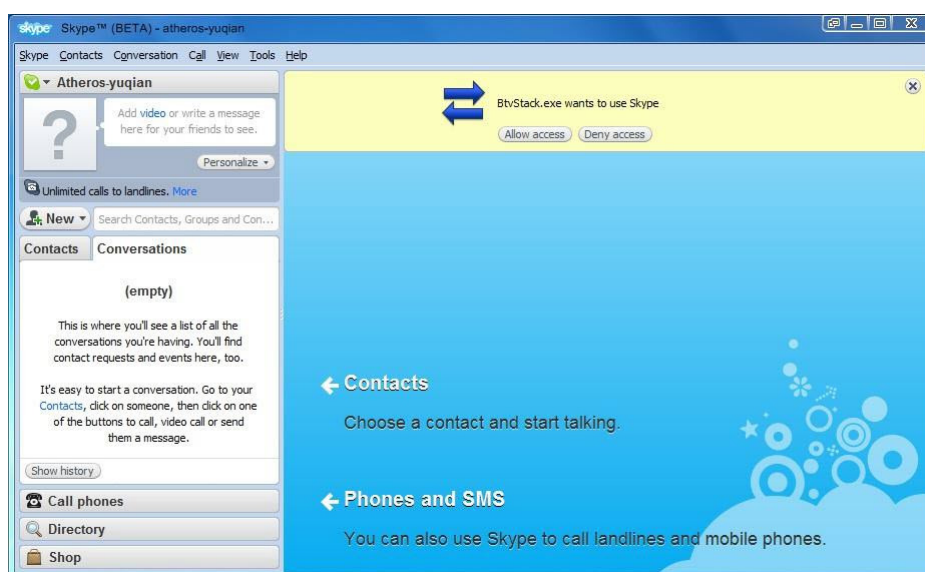
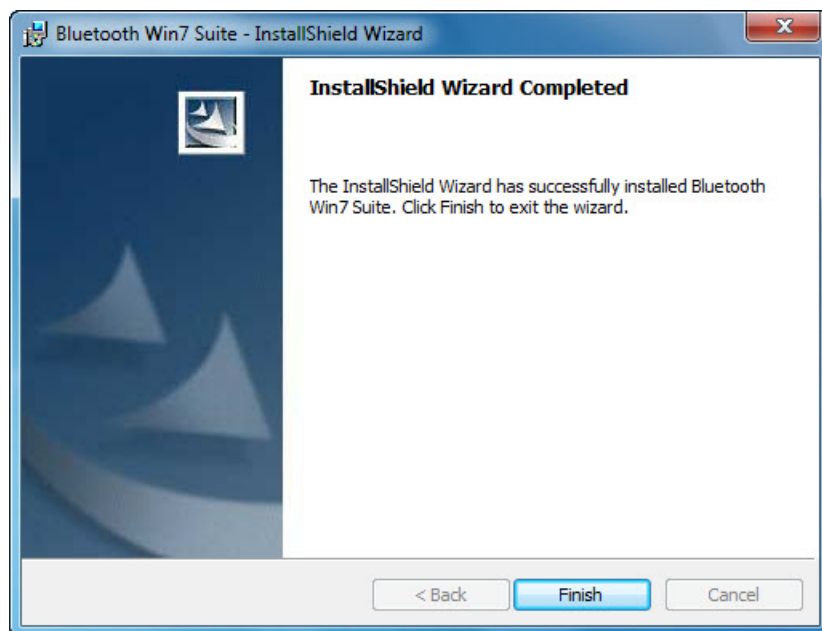


Figure 2-6. Skype Access Warning

**NOTE:** The Skype screen, as shown in [Figure 2-6](#), will be prompted only if the Skype software has already been installed on the operating system where these files are being installed. Otherwise, a Skype screen will not be displayed. In this case, skip the next step.

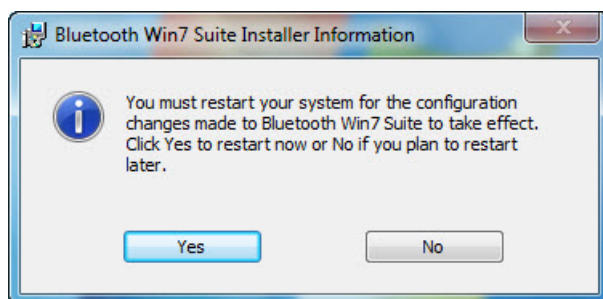
8. Click the **Allow access** button on the top of the screen.

At this time, the InstallShield Wizard Complete screen is displayed. See [Figure 2-7](#). Users will be prompted to restart the computer now or later.



*Figure 2-7. Finishing InstallShield Wizard*

9. Clicking **Finish** completes the installation and prompts a restart of the system. See [Figure 2-8](#).



*Figure 2-8. Restarting Your Computer*

10. Click **Yes** to complete the installation process and reboot your computer.



## Launching the Bluetooth Win7 Suite

1. Insert the Bluetooth Win7 Suite USB dongle into one of the USB ports of the system.

The system starts to install the device driver software. The following message appears on a popup screen:

### Installing device driver software

**Click here for status.**

While the driver is being installed, users may click on the pop-up window to see the driver installation status. This process may take several minutes.

## Verifying the Driver Installation

1. To verify that the driver installation correctly installed, insert the Atheros Bluetooth dongle into one of the USB slots.
2. From the Start menu, open the **Control Panel** and click the **Hardware and Sound** section. Under Devices and Printers, click the Device Manager link which will open up that window. In **Bluetooth Radios**, make sure the driver is installed (**Bluetooth USB Adapter**) and therefore listed here. Double click on this icon to view its properties. See [Figure 2-10](#).

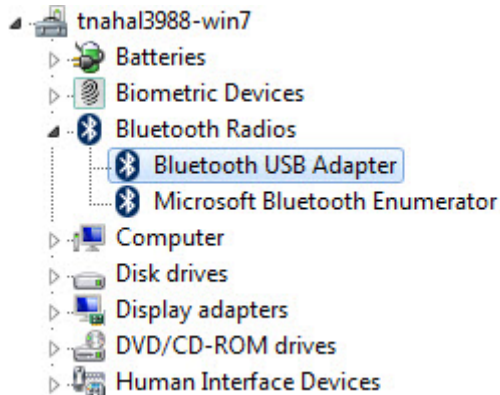


Figure 2-9. Checking the Newly Installed Bluetooth Driver

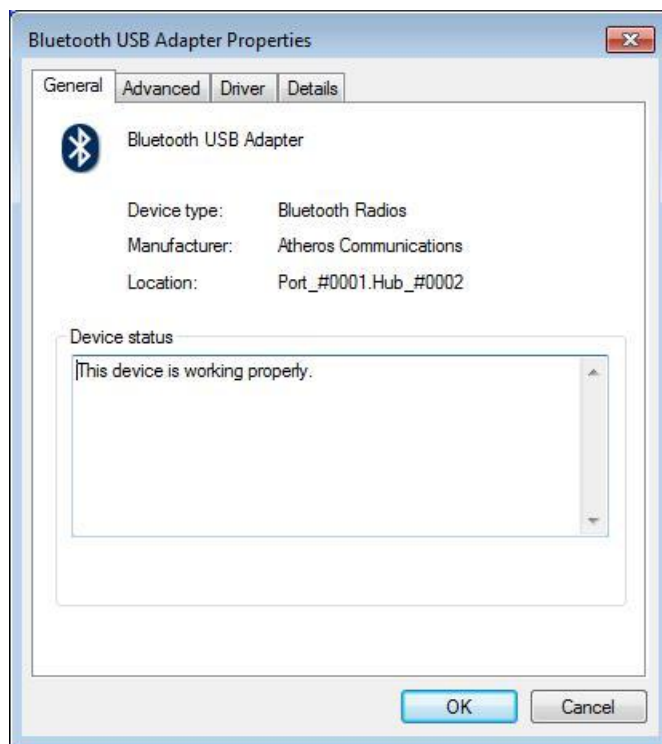
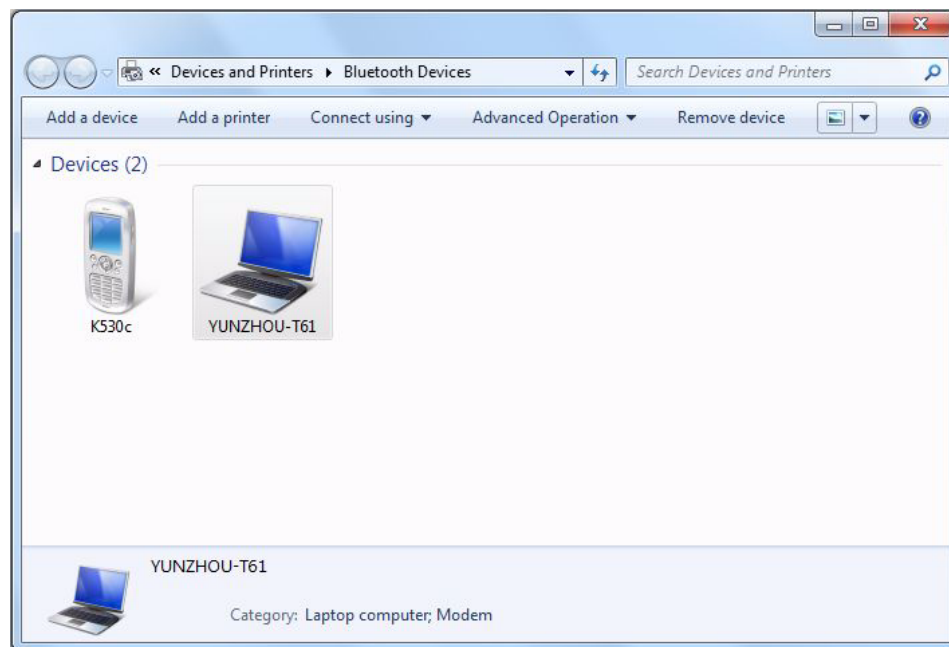


Figure 2-10. **Bluetooth USB Adapter Properties window**

3. Exit the **Control Panel**.

## Launching the Bluetooth Software

From the Start menu, click **All Programs > Bluetooth Suite > Bluetooth Devices** which will open a window, like the one seen in [Figure 2-11](#).



*Figure 2-11. Bluetooth Devices window*

From this window, users can Add a device, Add a printer or configure a paired device by double-clicking its icon.

Refer to the following chapters for the following:

- [Chapter 3](#) on how to add Bluetooth devices.
- [Chapter 4](#) on sending and receiving files.

## Uninstalling the Bluetooth Win7 Suite

Use the following procedure to uninstall the Bluetooth Win7 Suite.

1. Choose **Start > All Programs > Bluetooth Suite > Uninstall Bluetooth Suite** as shown in [Figure 2-12](#).



*Figure 2-12. Uninstalling Existing Bluetooth Suite from the Start menu*

A **Preparing to Remove** screen is prompted, followed by a confirmation prompt as shown in [Figure 2-13](#).



*Figure 2-13. Confirming Bluetooth Suite uninstallation*

Click **Yes**.

After a few minutes, the application is automatically uninstalled without any further user input.

# 3

## Adding Bluetooth Devices

This chapter describes how to discover, configure, pair, and add Bluetooth devices to a system using the Bluetooth Win7 Suite.

### Discovering and Adding Bluetooth Devices

This section describes how to pair most commonly used Bluetooth devices. For the pairing information of a particular device, refer to the documentation that came with the device in question or go to the manufacturer's website to learn how to make a device discoverable and pair it with the Bluetooth Win7 Suite.

Before adding any new Bluetooth devices, users need to discover which devices are within range. Before exchanging messages or information between your system and these Bluetooth devices, a communication link known as pairing must be first configured. Take the following steps in discovering and pairing Bluetooth devices which are within range.

1. Plug in the Bluetooth adapter into one of the USB ports of the computer running Bluetooth Win7 Suite.

If a Bluetooth adapter is already built in or attached to the computer, ignore this step.

2. Right or left click on the Bluetooth icon.

This displays the main Bluetooth menu. See [Figure 3-1](#).

## Bluetooth Dongle Prerequisites

When attempting to pair with another PC, that PC must have a Bluetooth enabled device (built-in or manually installed in the USB slot). From the Start menu, click **All Programs > Bluetooth Suite > Bluetooth Devices** which will open the window seen in [Figure 3-1](#).

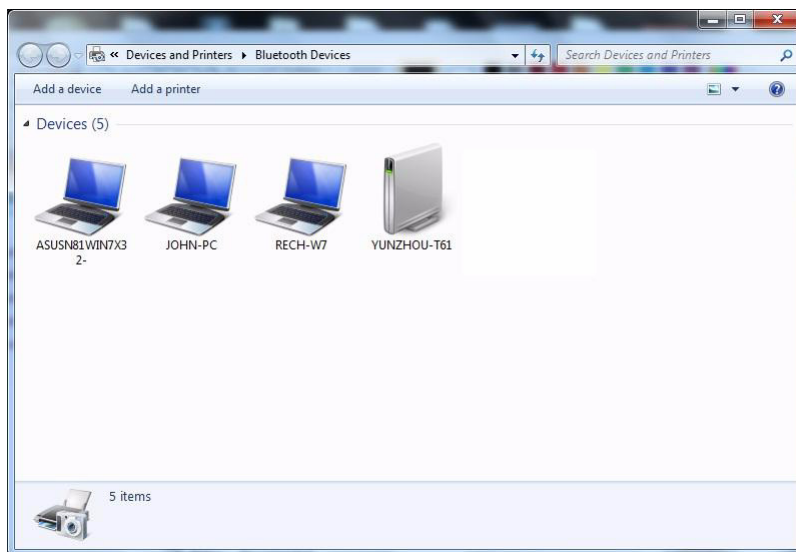


Figure 3-1. Bluetooth Devices window

### 3. Click **Add a Device**.

It displays the Bluetooth devices to choose from as shown in [Figure 3-2](#).

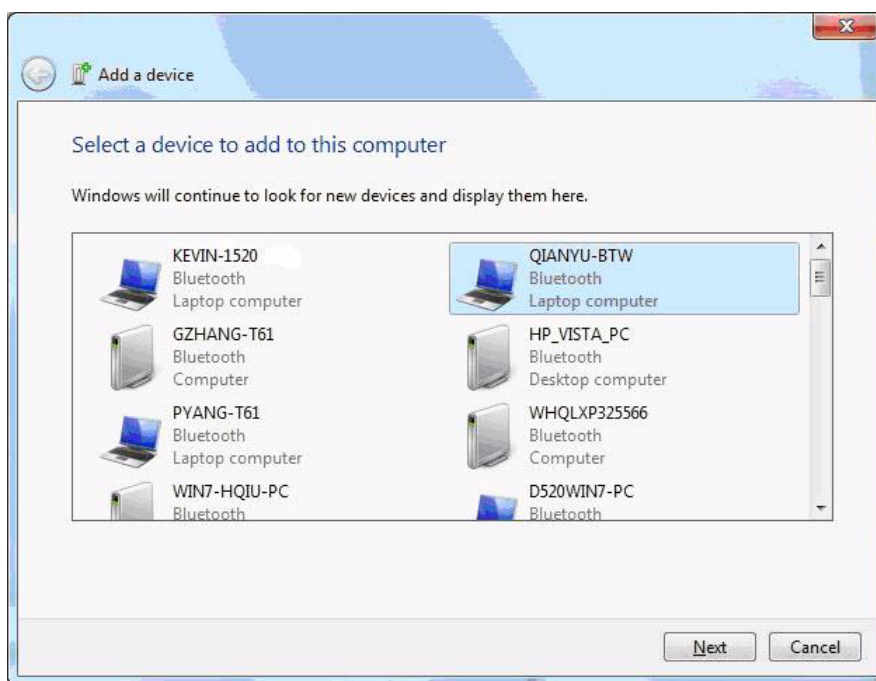
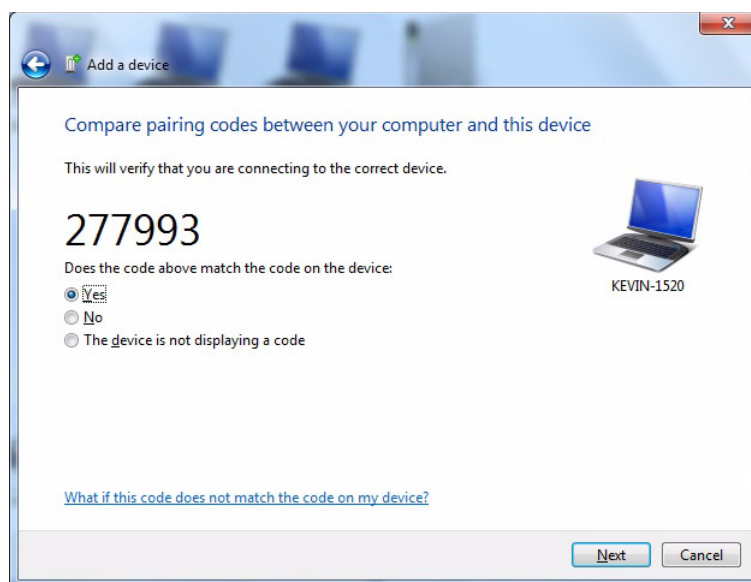


Figure 3-2. Adding Bluetooth Devices

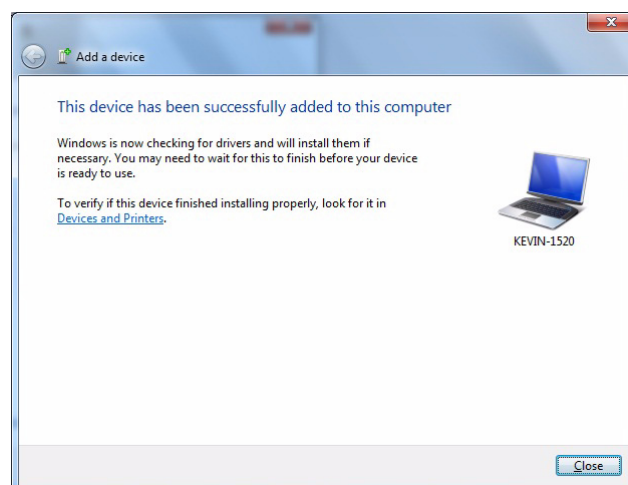
**NOTE:** Add only those Bluetooth devices that you trust.

4. Select the device to add and click **Next**.
5. A 6 – 8 digit pairing code is generated automatically for the remote device. Ensure that this code matches the code displayed on the device being used. The remote device must too agree to this pairing. Once both parties of the pairing have agreed, the Bluetooth connection is then made. See [Figure 3-3](#) for details.



*Figure 3-3. Selecting a Pairing Option*

6. After entering the pairing code on the local computer, click **Next**.
7. Click **Close**. See [Figure 3-4](#).



*Figure 3-4. Adding of Device Successful*

## Displaying Enabled Bluetooth Devices

From the main Bluetooth menu, choose **Bluetooth Devices**. It displays the enabled Bluetooth devices. See [Figure 3-5](#).

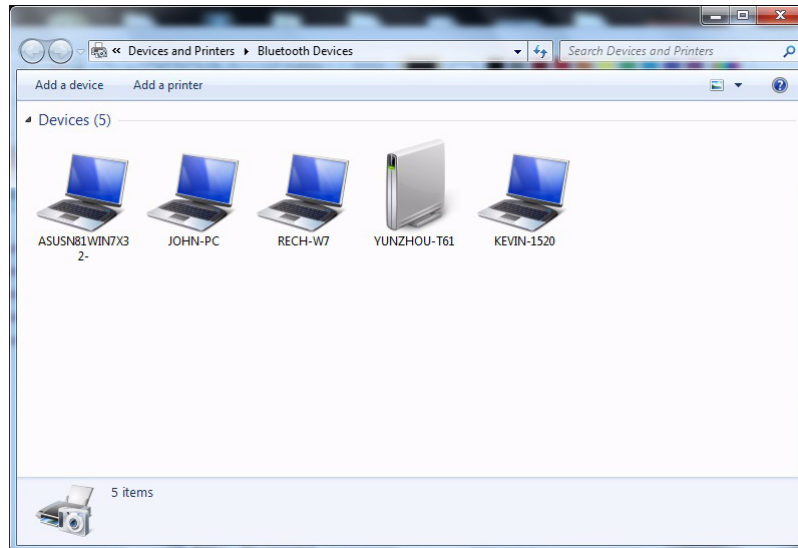


Figure 3-5. Enabled Bluetooth Devices



# 4

## Managing Bluetooth Devices

This chapter describes how to configure and manage Bluetooth devices using the Bluetooth Win7 Suite.

**NOTE:** It is assumed that Bluetooth Win7 Suite is already installed on the local system.

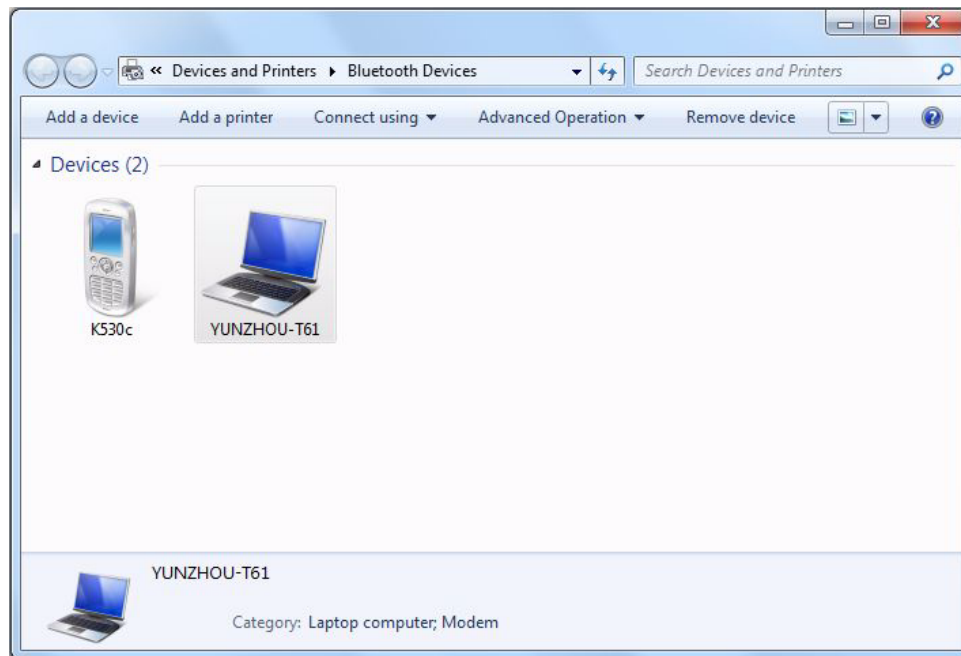
The following main topics are covered in this chapter:

- Managing Bluetooth Devices
- Bluetooth Options
- Audio Services
- File Operations
- Sync Operations
- Authorizations
- The Right-Click Option

## Managing Bluetooth Devices

The Bluetooth Win7 Suite adds and configures various Bluetooth devices in order to perform various functions between Bluetooth enabled devices. These devices can be phones, modems, audio devices, printers, imaging systems, Fax machines, and computers (workstations, servers, PDAs, etc.).

1. To begin configuration of the Bluetooth Win7 Suite, from the Start menu, click **All Programs > Bluetooth Suite > Bluetooth Devices** which will produce the window seen in [Figure 4-1](#). This window displays the devices that have previously been paired with the local computer through the Bluetooth protocol.



*Figure 4-1. Bluetooth Devices window*

Simply clicking a device will extend the bar at the top of this window. The choices are **Add a device**, **Add a printer**, **Connect using**, **Advanced operation** and **Remove device**, as shown in [Figure 4-2](#).

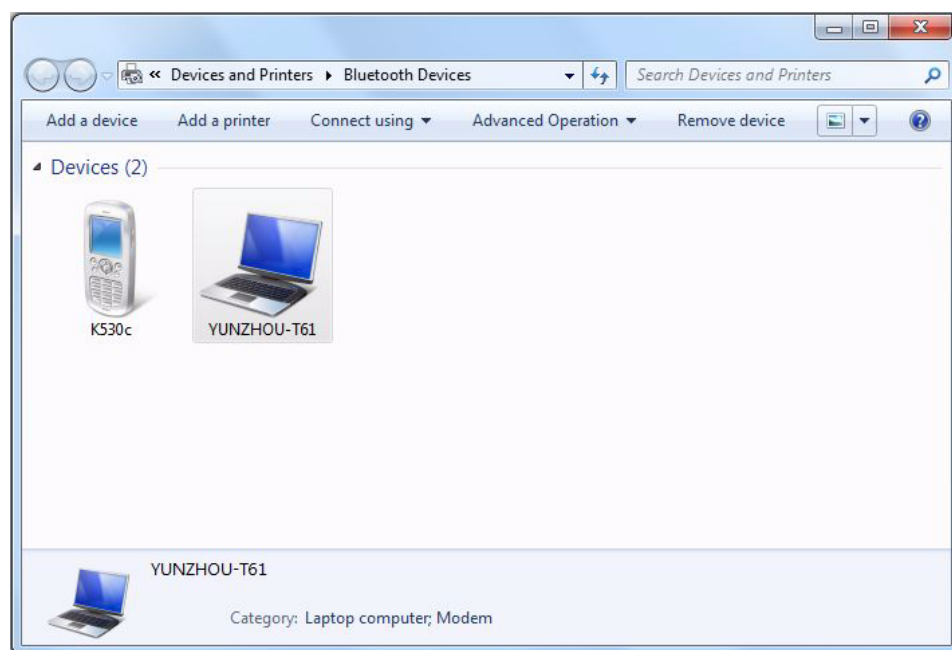


Figure 4-2. Bluetooth Devices - Device Selection

**Add a device** — Click this button to add a device to Bluetooth paired devices of the local computer. This will open a new configuration window as seen in [“Adding Bluetooth Devices”](#) on [page 3-1](#).

**Add a printer** — Click this button to add a printer through the Windows configuration for adding printers.

**Connect using** — Provides three choices for the connection to the remote device, either through a Direct Connection, through an Access Point or through an Ad Hoc Network.

**Advanced Operation** — The Advanced Operation tab allows for multiple operations over the Bluetooth connection, such as:

*Connect to Operation Window* - Choosing this option will open Bluetooth Settings window as seen in [Figure 4-3](#) to configure the Bluetooth settings for the remote device.

*Connect to audio device* - Connect to audio device - Choose this option to play audio on the remote device, originating from the local computer, as shown in [“Audio Services”](#) on [page 4-14](#).

*Connect to Stereo Audio source device* - Choosing this option open stereo audio on the local computer, originating from the remote device, using the A2DP protocol for enhanced quality, as seen in [“Audio Services”](#) on [page 4-14](#).

*Connect to Hands Free Audio Gateway* - Choose this option to allow the local computer to receive an audio stream from a remote device, as seen in

**“Audio Services”** on [page 4-14](#). This choice is used more for telephone connections than music audio, as the quality will not be as good.

**Browse FTP folder** - Choose this option to browse the FTP folder on the remote device.

**Send file** - Choosing this option will open a Windows browser window to find a file to be sent to the remote device using the Bluetooth protocol.

**Remove Device** — Clicking this button will remove the selected device from the Bluetooth PAN network of the local computer.

To manage any linked Bluetooth device, double-click the icon, which will reveal the window seen in [Figure 4-3](#).

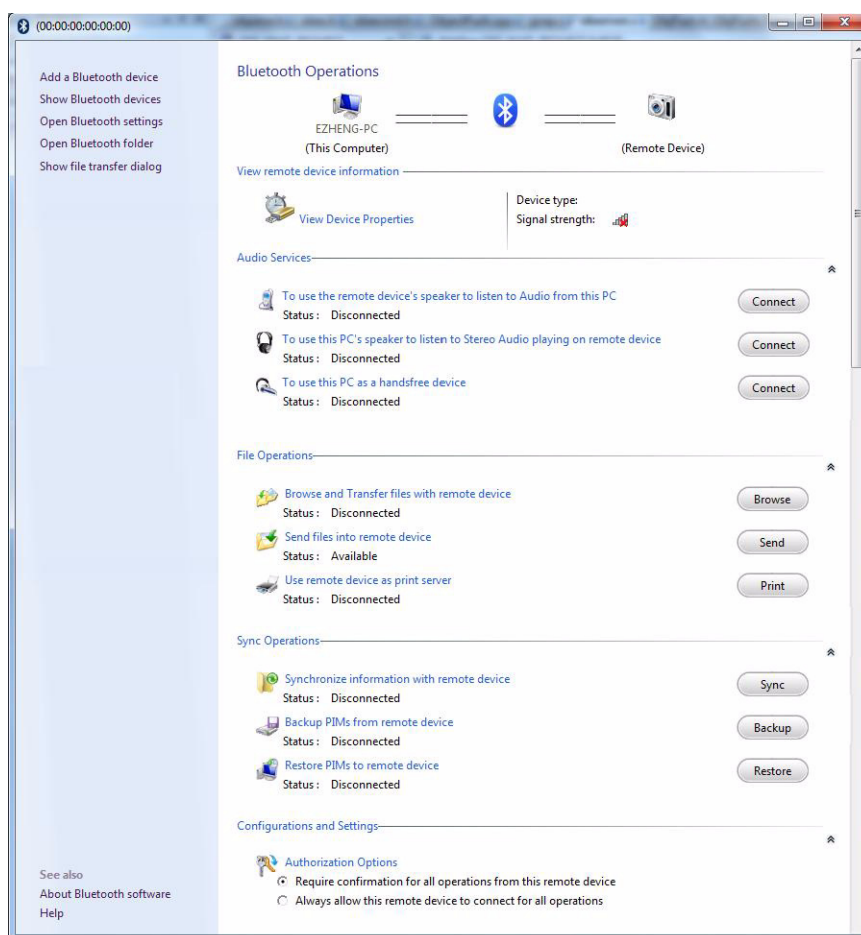


Figure 4-3. Bluetooth Operations window

The Bluetooth Operations window can be considered as a central command point. Most things that can be done between Bluetooth devices starts from here.

The left-hand blue pane of the previous window allows configurations of the Bluetooth Win7 Suite program, and includes:

1. **Add a Bluetooth device** — Click this link to add a device which will open the window seen in “[Discovering and Adding Bluetooth Devices](#)” on [page 3-1](#).
2. **Show Bluetooth devices** — Clicking this link will open the Bluetooth Devices window as shown in [Figure 4-1](#).
3. **Open Bluetooth settings** — Clicking this link will open the following window to configure.

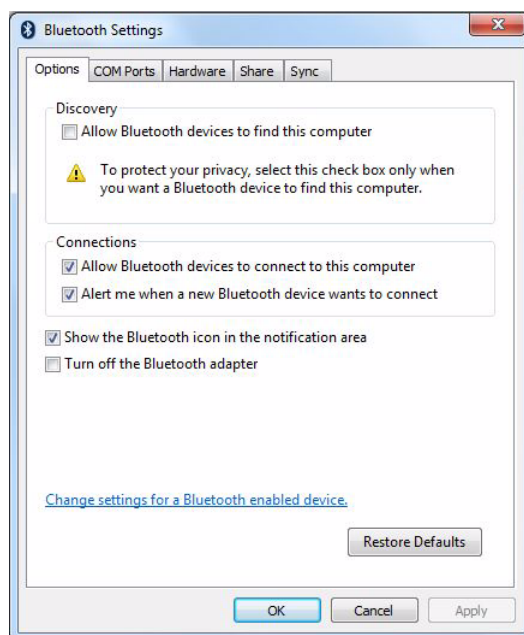


Figure 4-4. Bluetooth Settings - Options

### Bluetooth Options

The first window to appear is the Options window. Here users may configure four options, which are:

- **Allow Bluetooth devices to find this computer** - Users must click the check box of this option if the Windows 7 computer is to be discoverable for remote devices. If not, remote devices will not be able to discover and ultimately connect to the computer. Users are recommended not to leave this option checked as it may allow other unwanted devices to connect to this computer through Bluetooth.
- **Allow Bluetooth devices to connect to this computer** - This option must be checked in order for remote devices to connect to the Windows 7 computer. Although devices may be paired with this computer, if this box is not checked, no information will be shared between the two paired (or unpaired) devices.
- **Alert me when a new Bluetooth device wants to connect** - Users may check this box if they wish to be notified by a pop-up message when a new remote device is attempting to connect with the Windows 7 computer.

- **Show the Bluetooth icon in the notification area** - Users can have this box checked to display the Bluetooth icon in the lower right-hand taskbar of Windows 7 when Bluetooth is enabled.
- **Turn off the Bluetooth adapter** - Click the check box to disable the bluetooth adapter. this will render the local computer undiscoverable.

Once changes have been made, users must click the **Apply** button for these changes to take effect.

### COM Ports

Click the **COM Ports** tab at the top of the Bluetooth settings window to display the following window.

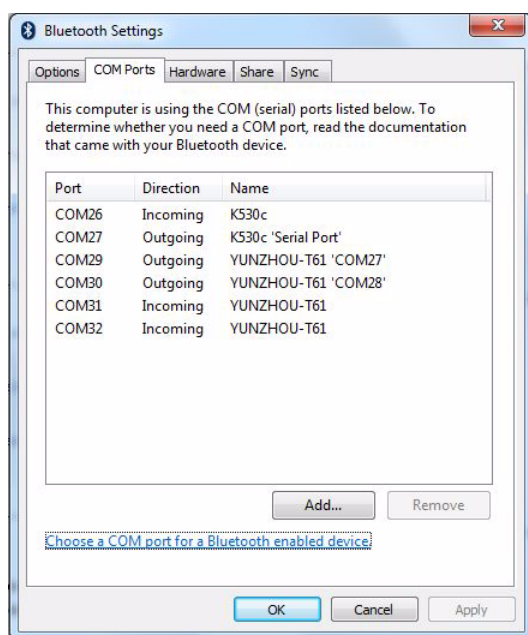


Figure 4-5. Bluetooth Settings - COM Ports

When using the Add Bluetooth Device Wizard to add a Bluetooth enabled device to the Windows 7 computer, an incoming COM port is created, which permits the remote device to connect to a program on the Windows 7 computer, and an outgoing COM port, which permits a program on the Windows 7 computer to connect to the remote device. Usually, only one of these COM ports is needed.

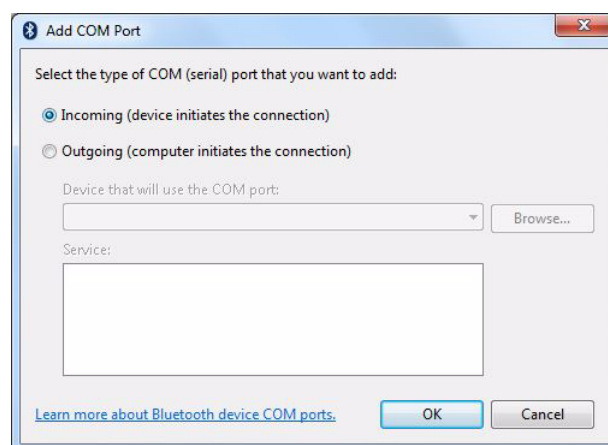
To decide which COM port to use, check the information that came with the program or the Bluetooth enabled device, or go to the manufacturer's website.

If users are still unsure of which COM port to use, try each COM port, one at a time, and use the one that successfully allows the program and the remote device to communicate.

To select a COM port:

Click on **COM Ports** tab. This displays both incoming and outgoing serial ports. Click **Add** to add a port. (Remove a port by highlighting it clicking the **Remove** button.)

Choosing the **Add** option displays **Add COM Port** screen that allows specification of whether the selected port will be incoming or outgoing. See [Figure 4-6](#).



*Figure 4-6. Bluetooth Settings - COM Ports -Add*

When selecting the **Incoming** option, the device initiates the action. When selecting the **Outgoing option**, the computer initiates the action.

Select the **Outgoing** COM port button and then click the **Browse** button to select the appropriate device for the outgoing serial port. The client machine then begins to install the driver software for the device and the standard serial over Bluetooth link for the selected port. Then another incoming port is added. When the task is complete, click **OK**.

**NOTE:** If the device that is to be added is not displayed, make sure that device is turned on. Follow the setup instructions that came with that device. If the device selected does not have the serial port service running, an error message will be displayed on the screen indicating the device selected does not have a serial port service running. In that case, select another device.

### *Using the Serial Port Profile (SPP)*

The Serial Port Profile defines the requirements for Bluetooth devices necessary for setting up emulated serial cable connections using Radio Frequency Communication (RFCOMM) between two peer devices. RFCOMM is a simple transport protocol, which provides emulation of RS-232 serial ports over the Logical Link Control and Adaptation Layer Protocol (L2CAP) protocol. The L2CAP is layered over the Baseband Protocol and resides in the data link layer.

The SPP function is provided by the Windows 7 OS. It requires the Vista version of HyperTerminal (or equivalent) which needs to be installed before

using this feature. The HyperTerminal tool may be downloaded from the internet.

### Bluetooth Hardware

The **Hardware** option allows users to check the functionality of the local Bluetooth hardware. Click on the **Hardware** tab to display the connected Bluetooth devices.

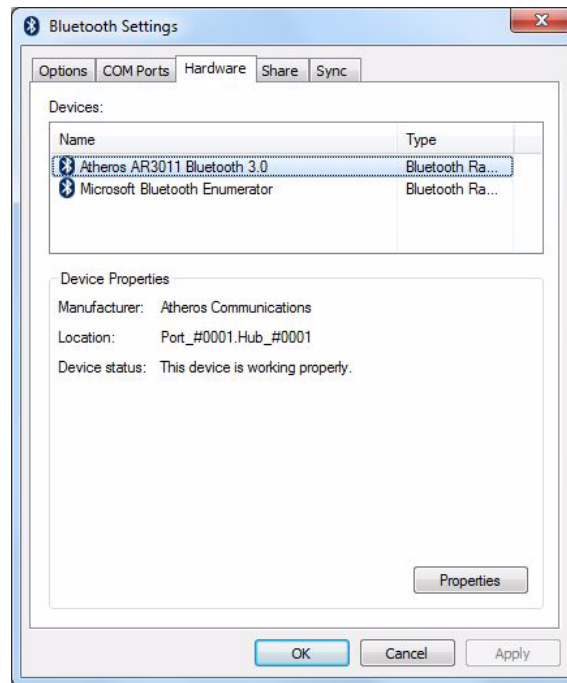


Figure 4-7. Bluetooth Settings - Hardware

Select the desired Bluetooth device and click on the **Properties** button, which will produce the properties of the selected device, such as Driver and Radio Information.

**WARNING:** Be careful when using the driver options which might roll back, disable or uninstall the driver. Do not click on these buttons unless there is a real intention to perform those functions.

### Share

The **Share** option will allow users to share files between Bluetooth enabled devices and change the destination location of files that have been transferred from a Bluetooth paired device to the Windows 7 computer. To open the shared folder on the local computer, click the Open Bluetooth Exchange Folder link, which will display the folder to modify files. To change this destination location, click the Browse button to set the destination location, as seen in [Figure 4-8](#).



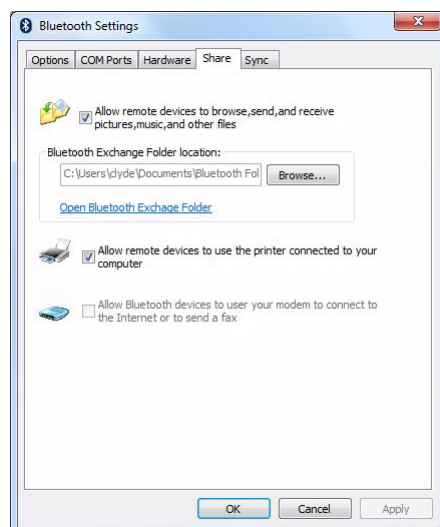


Figure 4-8. Bluetooth Share window

Also within this window, users may open the folder which contains the Bluetooth shared files by clicking [Open Bluetooth Exchange Folder](#). Users may also choose to allow other devices to use the printer that is being employed by the Windows 7 computer by checking “Allow remote devices to use the printer connected to your computer”. If users have a fax machine connected to the Windows 7 computer, it may be shared too by checking the “Allow Bluetooth devices to use your modem to connect to the Internet or send a fax” box.

### Bluetooth Sync

The **Sync** option will allow users to synchronize their information with Bluetooth paired devices. Simply click the Sync tab as shown in [Figure 4-9](#) which will display the following window:

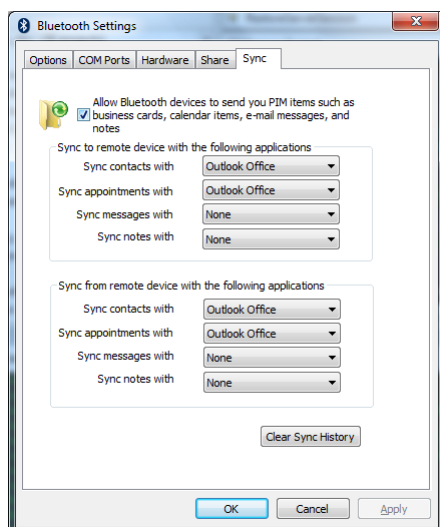
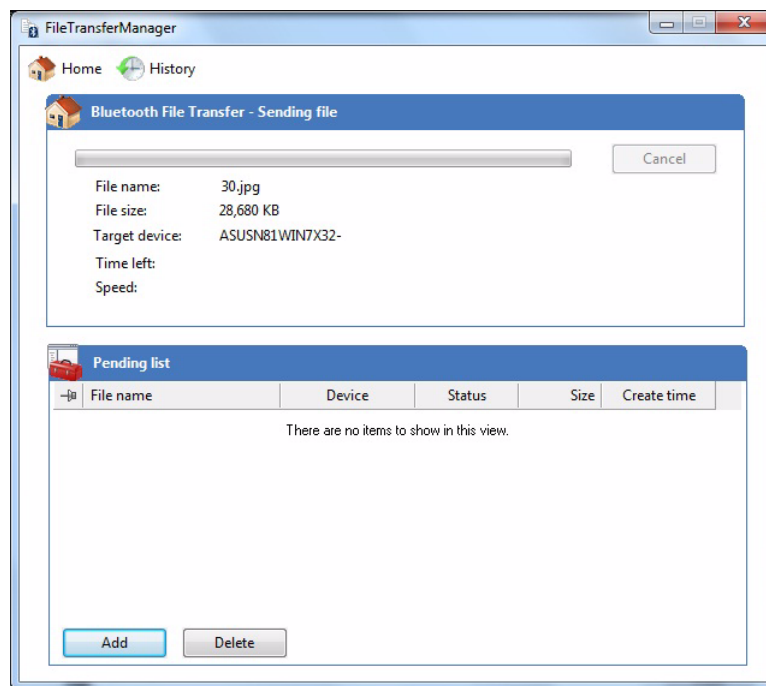


Figure 4-9. Bluetooth Properties - Sync

Click “Allow Bluetooth devices to send you PIM items” to allow remote devices to exchange and update folders with the Windows 7 computer. If this box is not checked, remote devices will not be able to send information to the Windows 7 computer. Use the pull-down menus to set the information to be synchronized, either having the Windows 7 computer acting as a client (“Sync to remote device from the following applications” in [Figure 4-9](#)) or as a server (“Sync from remote device from the following applications” in [Figure 4-9](#)). When the changes have been made, click OK to set these changes and the information will be interchanged between the Client and Server. Click the **Clear Sync History** button to remove any information previously set using the synchronization feature.

(Continued from [page 4-4](#))

4. **Open Bluetooth folder** — Clicking this link will open the Bluetooth Folder on the local Win7 computer.
5. **Show File Transfer Dialog** — The following windows displays the File Transfer Dialog window which will pop upon file transfer initiated.

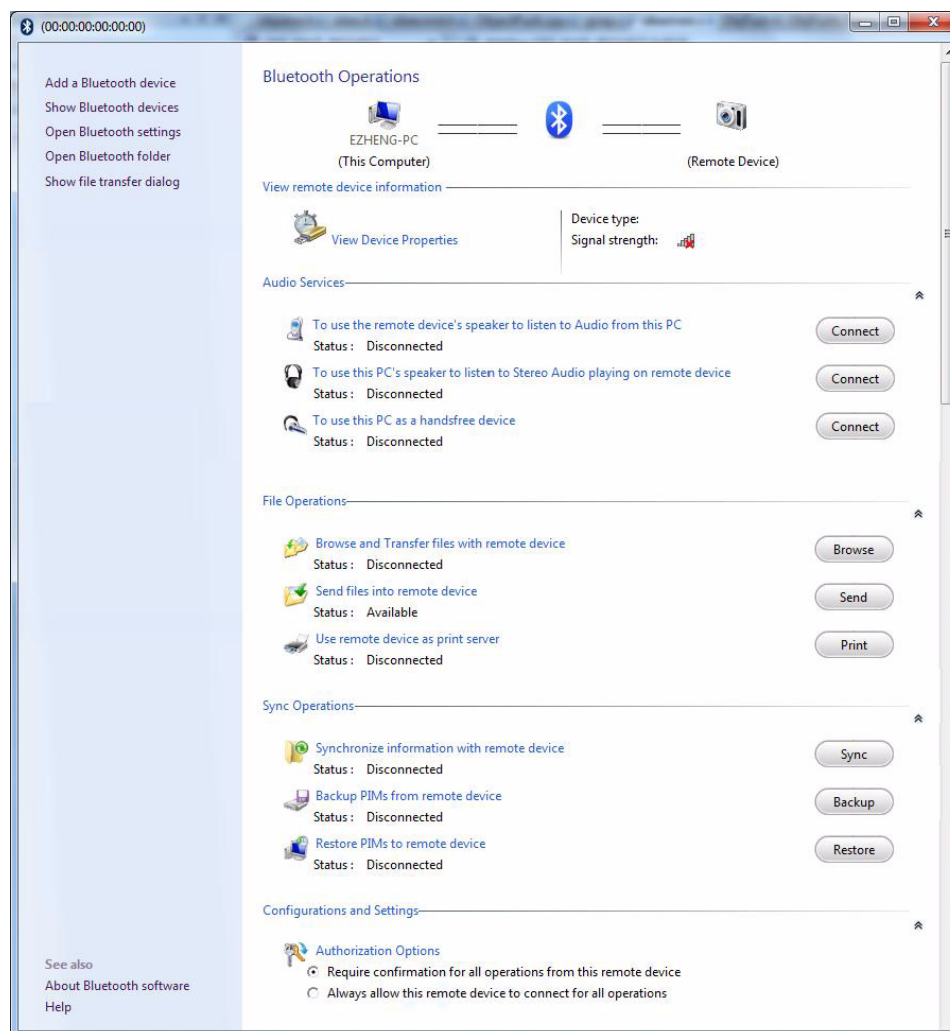


*Figure 4-10. File Transfer Manager window*

This window will show those transfers that are currently being transferred, along with their pertinent information such as name and file size, as well as those that are in the queue to be transferred. Users may add files to the queue by clicking the Add button, which will open a new list window. Within this new list window, click the Add button, which will open a Windows browser window where users can find files to be transferred.

## Bluetooth Operations

The top of the page displays the two devices (named as This Computer and Remote Device) that are currently linked by Bluetooth and to be configured in this window, as shown in [Figure 4-11](#).



**Figure 4-11. Bluetooth Operations window**

The next section following provides details regarding the remote device, including its name on the Bluetooth network, the type of device, the signal strength between devices and the properties of the remote device, which can be seen by clicking the **View Device Properties** link, which will open the window as seen in [Figure 4-12](#).

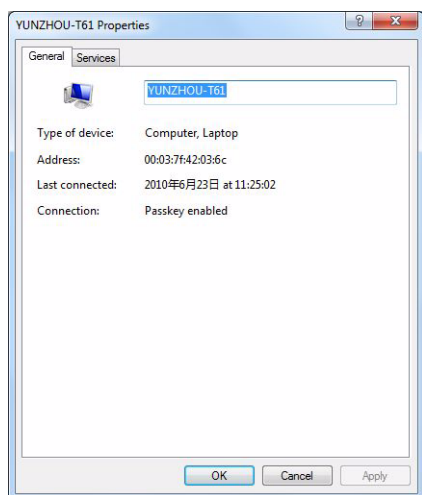


Figure 4-12. Properties window of the remote device

This window contains the following information:

**Type of device** — Defines the type of device of the remote device, such as Computer Laptop, Computer Server, Computer Desktop, Computer Wearable, Handheld Computer or PDA, Palm Computer or PDA, Smart Phone, Mobile Phone, Hands free Audio Device, Headset (Audio Device), Hi-fi Audio Device, Printer or others.

**Address** — Displays the physical MAC address of the remote device

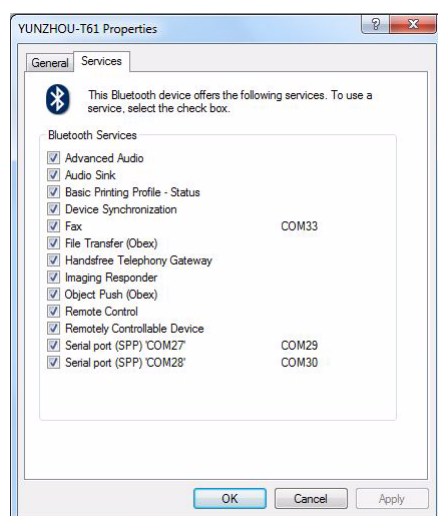
**Last Connected** — Displays the last time the remote device was connected to the local computer, through Bluetooth

**Connection** — Describes the current method of Bluetooth connection used between these two devices. Three connections are possible:

*Passkey enabled* - This Bluetooth connection is enabled using a passkey shared between the remote device and the local computer, for authentication.

*No Passkey* - This Bluetooth connection is enabled without the use of a passkey, so no authentication is required for the Bluetooth connection.

Clicking the **Services** tab will display a window, like the one seen in [Figure 4-13](#).



**Figure 4-13. Properties window of the remote device - Services tab**

This window lists the Bluetooth Services that the local computer can use on the remote device. All of the choices are enabled by default. To disable any of these services, simply uncheck its corresponding box and click Apply, but be careful, unchecking of any of these boxes may make certain functions unusable. Users should have a good knowledge of the remote device before performing these actions.

## Audio Services

The next section of the Bluetooth settings window is used to configure the audio settings between the local computer and the remote device. There are four connections that can be made, as seen in [Figure 4-14](#).

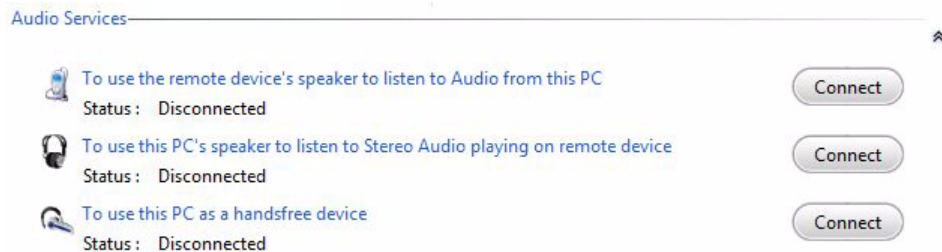


Figure 4-14. Bluetooth Settings - Audio Services

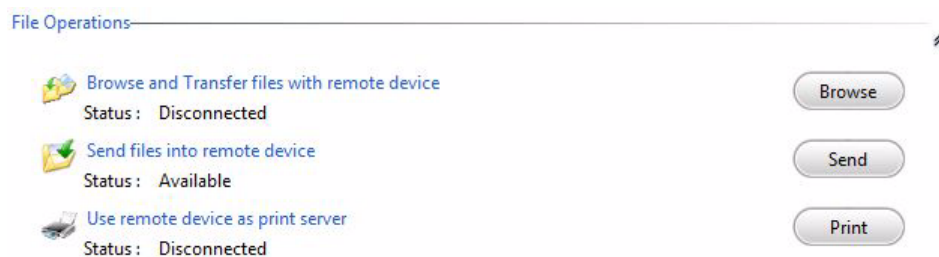
**To use the remote device's speaker to listen to Audio from this PC** — To play stereo audio on the remote device, originating from the local computer, click Connect. This feature uses the A2DP protocol for enhanced quality.

**To use this PC's speakers to listen to Stereo Audio playing on remote device** — Click the Connect button to hear stereo audio on the local computer, originating from the remote device, using the A2DP protocol for enhanced quality.

**To use this PC as a handsfree device** — Clicking Connect will allow the local computer to receive an audio stream from a remote device. This choice is used more for telephone connections than music audio, as the quality will not be as good.

## File Operations

The file operations section is used to configure the operations of the remote device, such as file transfer, print server and synchronization, as shown in [Figure 4-15](#).



*Figure 4-15. Bluetooth settings - File Operations*

The following items may be configured in this window:

**Browse and Transfer files with remote device** — Clicking the Browse button opens the shared Bluetooth folder that has been previously created on the remote device. Files may be pasted to this window, deleted, copied or cut from it. Any actions taken in this window will be done in the shared Bluetooth folder on the remote device.

**Send files into remote device** — Clicking the Send button will open a Windows browser window to find a file to be sent to the remote device. Simply browse the local computer for the file to transfer and then click the Open button, which will automatically send that file to the shared Bluetooth folder of the remote device.

**Use remote device as a print server** — If the remote device connected to the local computer is a Bluetooth Printer, this method is to be used for printing. Click Print and the program will open a Windows explorer window where the file to be printed can be found. After finding a file to print, select that file and click Open, which will send it to the remote Bluetooth printer to be printed.

## Sync Operations

Sync operations allow users to exchange and update important files, like calendars or address books from the Windows 7 computer to a remote device, such as a smartphone or PDA. To configure the settings for the Sync function, go to the main Bluetooth Settings page and see the Sync Operations section, as shown in [Figure 4-16](#).



Figure 4-16. Bluetooth Settings - Sync Operations

Users can:

**Synchronize information with remote device** - Clicking the Sync button will sync pre-selected folders and files with the remote device. These files and folders can be configured in the Bluetooth Settings-Sync folder, as shown in [Figure 4-9](#).

**Backup PIM from remote device** - Clicking the Backup button will import PIMs from a remote device.

**Restore PIM to remote device** - Clicking the restore button will export PIMs to a remote device.

## Authorization Options

The last section of the **Bluetooth Settings** window is for the authorization settings for the remote device when connecting to the local computer. The options are shown in [Figure 4-17](#).

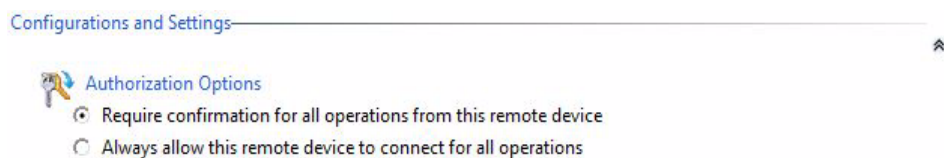


Figure 4-17. Authorization Options

Two choices exist and they are:

**Require confirmation for all operations from this remote device** — Choose this option to configure the local computer to prompt for authorization when the remote device requests permission to send perform actions on the local computer, such as sending and receiving files.

**Always allow this remote device to connect for all operations** — Choose this option to allow the remote device to perform operations on the shared Bluetooth folder of the local computer.

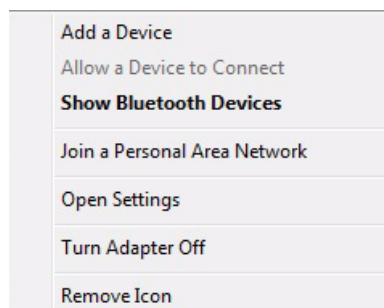
Right click on the Bluetooth icon and choose **Show Bluetooth Devices**. See [Figure 4-1](#).



## The Right-Click Option

Alternatively, users can send files from their computer to a Bluetooth device using right-click. Simply find the file or picture on the computer to be sent and then right-click the icon of the file or picture which will open a menu where the user chooses **Send by Bluetooth To > Bluetooth Device** where users can choose a connected Bluetooth Device to which to transfer the file. This will produce File Transfer Window, as seen in [Figure 4-10](#), where the user can see the progress of the file transfer that is automatically being transferred.

Another right-click feature is from the Bluetooth Icon located in the lower right taskbar of the Windows 7 desktop. From here users can perform various Bluetooth actions as seen in



*Figure 4-18. Right-Click options*

The following options are available in the previous Bluetooth menu:

**Add a device** — Choosing this option will open the window seen in [Figure 3-2](#). Please use the same method described at this figure for adding bluetooth devices.

**Allow a device to connect** — If the user has not already given permission for the local computer to be discoverable, users can click this choice which will make this device discoverable on the Bluetooth network.

**Show Bluetooth Devices** — Clicking this option will open the window seen in [Figure 4-1](#) to configure Bluetooth connected devices.

**Join a Personal Area Network** — Clicking this option will open the window seen in [Figure 4-1](#) to configure the Bluetooth PAN.

**Open Settings** — Clicking this option will open the window seen in [Figure 4-4](#). This window and its tabs are described in “[Bluetooth Options](#)” on [page 4-5](#).

**Turn Adapter Off** — Clicking this option will disable the connected Bluetooth dongle. One turned off, the option for the dongle to be turned on again will appear in this place. To turn it back on, just click this place.

**Remove Icon** — Clicking this choice will remove the Bluetooth Icon from the taskbar. This is not recommended.



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